

packaging. Sometimes printed information is applied to the tear tapes, such as the name of the goods or opening instructions.

5 Tear tapes, however, are never incorporated into paper in the same manner as security elements. Instead, they are applied to the surface of the packaging as a subsequent conversion process.

10 It is an object of the present invention to combine the concepts of secure labels and tear tapes to provide paper, which can be used for making packaging or labels, which has a removable element either to provide evidence of tampering or to provide
15 a vehicle for verification.

 The invention therefore provides paper having first and second opposing surfaces, and an elongate security element at least partially embedded in the
20 paper such that when a tearing force is applied to the elongate element, a removable portion is separated from the rest of the paper.

 The invention will now be described, by way of
25 example only, with reference to the accompanying drawings in which:-

 Figure 1 is a plan view of a label made from paper according to the present invention;

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 Figure 2 is a plan view of an alternative label to that shown in Figure 1; and

 Figure 3 is a pictorial representation of the
35 label of Figure 2 applied to a bottle.

 A label 10 made from paper according to the

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present invention is illustrated in Figure 1 and consists of a paper substrate having two opposing surfaces. A first surface can be used for bearing printed information or indicia and the second surface has a layer of an adhesive applied thereto. A
5 suitable adhesive would be Pressen 1456 or National DT 38-3624, which are hot melt and are pressure sensitive adhesive respectively although the adhesive used would very much depend on the intended use of the
10 label. An elongate flexible security element or thread 11 is wholly embedded within the paper layer as shown in Figure 1. Alternatively it may be only partially embedded so that it is exposed in windows at the first surface. A suitable methods of embedding
15 security elements 11 is described in EP-A-0059056, EP-A-070172, EP-A-0687324, EP-A-0625431, EP-A-0229645 and EP-A-0860298. A typical paper weight for a label containing a security element is 90gsm, although a person skilled in the art would recognise that a wide
20 range of paper weights could be used.

In the example shown in Figure 1 it is intended that the security element 11 can be used to remove a portion 12 from the label 10 between the two lines of
25 perforations 13. To enable this to occur, the adhesive is applied to the second surface of the paper layer only in the regions outside the perforation 13. Additionally, the paper substrate includes a small tab 14 projecting from one edge of the label 10
30 surrounding one end of the elongate element 11.

Thus, when the label 10 is applied to a surface
15, for example the side of the package, a bottle, or the like, it only adheres to the surface 15 in the
35 regions outside the removable portion 12. To remove the removable portion 12, a user grasps the tab 14 and pulls it backwards and upwards. As the security

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CLAIMS:-

1. Paper having first and second opposing surfaces,
and an elongate security element at least partially
5 embedded in the paper such that when a tearing force
is applied to the elongate element, a removable
portion is separated from the rest of the paper.
2. Paper as claimed in claim 1 in which the
10 removable portion is the elongate element.
3. Paper as claimed in claim 1 in which the
removable portion comprises a section of the paper
and the elongate element.
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4. Paper as claimed in any one of the preceding
claims in which the elongate element is wholly
embedded in the paper.
- 20 5. Paper as claimed in any one of claims 1 to 3 in
which the elongate element is exposed at windows in
the first surface of the paper.
6. Paper as claimed in any one of claims 1 to 3 or 5
25 in which one side of the elongate element is wholly
exposed across the full width of the paper.
7. Paper as claimed in any one of the preceding
claims further comprising at least one line of
30 perforations separating the removable portion from the
rest of the paper.
8. Paper as claimed in any one of claims 3 to 7 in
which the removable portion is an edge portion of the
35 paper.
9. Paper as claimed in any one of claims 3 to 7 in

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which the removable portion comprises a middle section of the paper.

5 10. Paper as claimed in any one of the preceding claims in which the removable portion comprises legible indicia.

10 11. Paper as claimed in claim 10 in which the legible indicia comprises printed information.

12. Paper as claimed in claim 10 in which the legible indicia is formed from demetallised or metallised alphanumeric characters on the elongate element.

15 13. Paper as claimed in any one of the preceding claims in which the elongate element is machine readable.

20 14. Paper as claimed in any one of the preceding claims in which the elongate element incorporates an activatable security feature.

25 15. Paper as claimed in any one of the preceding in which the elongate security element comprises one or more of the same or different security features.

30 16. Paper as claimed in any one of the preceding claims in which an end of the elongate element is enclosed in a tab projecting from an edge of the paper.

35 17. Paper as claimed in any one of claims 1 to 15 in which an end of the elongate element is exposed in a cut out portion at an edge of the paper.

18. A label made from paper according to any one of the preceding claims.

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19. A label as claimed in claim 18 further comprising an adhesive applied to at least a portion of the second surface of the paper, such that when the label is adhered to the surface and a tearing force is applied to the elongate element, a removable portion is separated from the rest of the label.

20. A label as claimed in claim 19 in which no adhesive is applied to the second surface in the region of the removable portion of the label.

21. A label as claimed in claim 19 in which a low tack adhesive is applied to the second surface of the removable portion of the label, said adhesive being of a lower tack than the adhesive applied to other parts of the second surface of the paper.

22. Packaging made from paper as claimed in any one of claims 1 to 17.

23. Paper substantially as hereinbefore described with reference to an as shown in the accompanying drawings.

24. A label substantially as hereinbefore described with reference to an as shown in the accompanying drawings.

25. Packaging substantially as hereinbefore described with reference to an as shown in the accompanying drawings.